

## DECLARATION OF ROBERT F. BRODSKY

I, Robert F. Brodsky, do hereby of aver and state:

1. I hold a Bachelor's Degree in Mechanical Engineering (BME) from Cornell University, a Master of Science Degree in Mathematics from the University of New Mexico, a Master of Aeronautical Engineering from New York University, and a Doctor of Science (ScD) Degree in Engineering from New York University.
2. My professional careers have been primarily in aerospace engineering, mechanical engineering, aerospace education, and lecturing.
3. My engineering experience began with the Sandia Corp. in Albuquerque, New Mexico, and primarily involved aerodynamic and structural design. I then became Chief of Aerodynamics for Convair in Pomona, California, followed by Chief Engineer for Space General Corp. in El Monte, California. I was later the Director of Technology Planning at TRW in Redondo Beach, California, and later Chief Engineer and Consultant for Microcosm, Inc. in El Segundo, California, and a three-day seminar lecturer in the U.S.A., Europe and Israel.
4. I was a Professor and Head of the Aerospace Engineering Department at Iowa State University in Ames, Iowa, from 1971 to 1980 and later Adjunct Professor of Aerospace Engineering at the University of Southern California from 1982 to 1996

and continue to advise and assist that department.

5. In my experience as a Professor, I taught the fundamentals of static and dynamic system design. As Chief Engineer and as acting Manager of the Mechanical Design Department, I had to supervise and evaluate such systems. In addition, I have been a registered Professional Engineer (of Mechanical Engineering in the State of California and of Aerospace Engineering in the State of Iowa).
6. My patent experience includes Chairman of the Invention Evaluation Committee at Space General Corporation where I was responsible for evaluating possible inventions from the scientific and patentability standpoint. I have acted as an expert witness on issues of structural design of aircraft components and as a technical expert on at least one occasion to evaluate claims of a patent for scientific soundness and patentability, as compared with the state of the prior art. I was also a joint inventor of a space personnel recovery system, which was featured in Time Magazine in 1963.
7. I grew up on a golfing family. In my younger days, I shot in the high 70's as a golfer. My mother was rated as the #2 women's golfer in the greater Philadelphia area. My father was a duffer but shot in the low 80's.

8. In April 2004, I tried the Mickey Finn T-Bar putter and compared it with other contemporary putters. My report is attached hereto as Exhibit A. I have also compared the Mickey Finn T-Bar putter with Mr. Finn's patent application, Serial No. 09/934, 967, and find that the patent application Figs. 1-4 and accompanying text accurately discloses the structure and operation of the T-Bar putter which I tested.
9. I have also reviewed U.S. Patent 5,308, 069 to Paquette and compared that patent's drawings, and description to the application of Mr. Finn, including the Finn claims, attached hereto as Exhibit B, which I understand are currently presented for evaluation in the U.S. Patent & Trademark Office.
10. From my comparison of the disclosed putter from Mr. Finn's application, his commercial T-Bar putter, and the prior art, in particular U.S. Patent 5,308,069 to Paquette, I have reached the following conclusions:
  - a. Patent application Serial No. 09/934, 967 accurately discloses the Mickey Finn T-Bar putter, which I examined and test played.
  - b. The single-centered support for the weight and the freedom of the ends of the cantilevered rear weight is fundamental to the originality and novelty of the putter and is essential in aiding the player in putting by providing a degree of compensation counteracting the torque on the club shaft of ball

contact due to the shaft's attachment to the clubhead at one end of the clubhead.

- c. The position where the shaft is attached to the putter head or body is not essential to the provision of the compensating torque provided by the T-Bar when the ball is struck, nor is the shape of the "T" bar so long as it is cantilevered with its ends free.
- d. This is all in direct contrast with the putter design shown in U.S. Patent 5,308,069 to Paquette for several reasons. The most important reason is that the Paquette bight 30, positioned at the rear of the putter, is rigidly secured to the putter body by peg portions 32 or 34, or 50 and 52, at both ends. Bight 30, therefore, is not capable of providing compensating inertial moments about the club shaft. The weight of bight 30 of Paquette is merely added mass at the rear and acts as a point for attachment for the shaft. It has no dynamic action capability vis-à-vis the club shaft torque. The entire clubhead of Paquette is described as having less weight than a conventional putter so there is no added mass in the Paquette putter head.
- e. Not only is the Finn putter different in structure, operation, and appearance from the Paquette putter, but from the structural standpoint, the Finn weight member is cantilevered from the putter head and is free to vibrate like a tuning fork, while the weight member 30 and its peg portions 50 and 52 of

the Paquette patent form a U-shaped end supported beam. The Finn weight structure 26 is a center rod supported cantilevered "T" bar weight. The two are fundamentally different engineering structures and neither one would or should be considered to suggest the other as merely choices in design. The Paquette putter design precludes the possibility of compensating dynamic inertial interaction.

- f. As an engineer, designer, inventor, experienced golfer, and professor of static and dynamic structures, it is my opinion that the Finn invention would:
  - 1. never be arrived at by study of the Paquette patent;
  - 2. would not be obvious from Paquette; and
  - 3. it is not the result of a mere matter of design choice.
  
- g. In testing of the Mickey Finn T-Bar putter with golfers, as described in Exhibit A, we each noted distinct sounds when striking the ball with a T-Bar putter. I also noted that I heard a slightly different sound when the ball was struck away from the sweet spot where the "T" bar is connected to the putter body by its support, as compared with the ball being struck towards the toe or towards the heel. I deduced this to mean that the cantilevered weight structure was acting as a resonant body somewhat like a tuning fork and thus performing as designed. To further amplify, the compensating

torque developed by the "T" bar dynamic action is in direct proportion to the "upsetting" torque which itself is a function of where along the clubhead the ball is struck. The sound produced by the hit varies in frequency as a function of the input torque.

- h. In my opinion, when the ball is struck by the putter anywhere along the face of the club, and when the shaft is not attached at the middle of the clubhead, a clockwise torque around the shaft develops, tending to turn the wrist of the stroker. In the Finn design, this clockwise rotation is counteracted or compensated (after a very short time delay) by an inertially produced counterclockwise torque due to the cantilevered attachment of the T-bar. This relieves the stroking-induced torque on the golfer's wrist, allowing the follow-through to maintain its intended direction. This developed counterclockwise torque is a fixed percentage of the input torque.

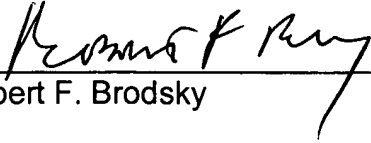
Depending upon the inertial characteristics in compliance of the stem of the T-bar constituting part of its design, this percentage can be anywhere from a small percent number to an ideal 100%. The aft and vertical location, shape and material distribution of the cantilevered weight is a matter of Mr. Finn's design and an infinite number of design variations upon this cantilevered design can be developed to achieve optimum compromise

design. If the attachment is not at the same level above the ground as the center of the golf ball, fore or aft torque (in the plane of the "swing") develops which might affect the speed of the putt but the golfer would soon learn to adjust for it. None of these characteristics would appear to me to be either present or described or fall within the teaching of U.S. Patent 5,308,069.

For the foregoing reasons, it is my opinion that the Paquette patent would in no way teach the Finn invention of his application and would in no way be an obvious matter of choice or design but is rather an important and inventive advance in putter design and should be granted a patent.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made herein on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Executed this 25 day of August 2004 at Rancho Beach, CA.

Signed   
Robert F. Brodsky